



Gorse Hill Primary Whole School Maths Progression Curriculum 2022- 2023

	Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Measurement	Geometry	Statistics	Decimals
Nursery	<p>Recite numbers past 5. Say one number name for each item in order: 1, 2, 3, 4, 5.</p> <p>Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').</p> <p>Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').</p> <p>Show 'finger numbers' up to 5.</p> <p>Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.</p> <p>Experiment with their own symbols and marks as well as numerals.</p>	<p>Compare quantities using language: 'more than', 'fewer than'. Solve real world mathematical problems with numbers up to 5.</p>			<p>Make comparisons between objects relating to size, length, weight and capacity. Begin to describe a sequence of events, real or fictional, using words, such as 'first', 'then...'</p>	<p>Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. Select shapes appropriately: flat surfaces for a building, a triangular pattern for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc.</p>	<p>Experiment with their own symbols and marks, as well as numerals.</p>	
Rec	<p>Count objects, actions and sounds. Count beyond ten. Verbally count beyond 20, recognising the pattern of the counting system. Subitise. Link the number symbol (numeral) with its cardinal number value. Subitise (recognising quantities without counting) up to 5. Link the number symbol (numeral) with its cardinal number value. Compare numbers. Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</p>	<p>Automatically recall number bonds for numbers 0-5 and some to 10. Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 Explore and represent patterns within numbers up to 10, including evens and odds Understand the 'one more than/one less than' relationship between consecutive numbers.</p>	<p>They solve problems, including doubling, halving and distributing groups evenly</p>		<p>Compare length, weight and capacity.</p>	<p>Select, rotate and manipulate shapes in order to develop spatial reasoning skills. Compose and decompose shapes so that children can recognise a shape can have other shapes within it, just as numbers can.</p>		

	Explore the composition of numbers to 10. Have a deep understanding of numbers to 10, including the composition of each number.							
Year 1	Count to and across 100 forwards and backwards. Read and write numbers to 100 in numerals. Read and write numbers from 1 to 20 in numerals and words.	Represent and use number bonds and related subtraction facts within 20. Add and subtract one-digit and two-digit numbers to 20. Solve one-step problems involving addition and subtraction.	Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	Compare, describe, measure and begin to record lengths, mass, capacity/volume and time. Recognise and know the value of different denominations of coins and notes. Tell the time to the hour and half past the hour.	Recognise and name common 2D shapes. Recognise and name common 3D shapes. Describe position, direction and movement, including whole, half, quarter and three-quarter turns.		
Year 2	Read and write numbers to at least 100 in numerals and words. Recognise the place value of each digit in 2 digit number. Compare and order number using < > and =	Recall and use addition and subtraction facts to 20 and use related facts to 100. Understand that addition can be done in any order and that subtraction cannot. Add and subtract numbers with up to 2 digits.	Recall and use multiplications facts for the 2, 5 and 10 times tables. Show that multiplication can be done in any order and division cannot. Calculate and write multiplication and division statements.	Recognise, name, find and write fractions $\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{4}$ and $\frac{1}{3}$ of a length, shape, set of objects or quantity. Recognise the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$. Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3.	Compare and order lengths, mass, volume/capacity and record using < > =. Find different combinations of coins that equal the same amount. Tell and write the time to five minutes, including quarter to/past.	Identify and describe the properties of 2D shapes. Identify 2D shapes on the face of 3D shapes. Compare and sort common 3D shapes. Use mathematical language to describe position, direction and movement.	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Answer simple questions by counting the number of objects in each category.	
Year 3	Read and write numbers in numerals and words to 1000. Recognise the place value of each digit in a 3-digit number. Compare and order numbers to 1000.	Estimate the answer to a question and use the inverse to check answers. Add and subtract numbers with up to 3 digits. Solve problems involving more complex addition and subtraction.	Recall and use multiplications facts for the 3, 4 and 8 times tables. Write and calculate multiplication and division statements using the multiplications facts they know.	Count up and down in tenths. Compare and order unit fractions, and fractions with the same denominators. Add and subtract fractions with the same denominators.	Measure, compare, add and subtract lengths, mass, volume and capacity. Add and subtract amounts of money to give change. Estimate and read time to the nearest minute. Measure the perimeter of simple 2D shapes.	Draw 2D shapes. Make 3D shapes using modelling equipment. Identify right angles, recognise that two right angles make a half turn, 3 make a three quarter turn and 4 a complete turn.	Interpret and present data using bar charts, pictograms and tables. Solve one step and two step questions using information presented in bar charts, pictograms and tables.	
Year 4	Count backwards through 0 to include negative numbers. Read Roman numerals to 100. Recognise the place value of each digit in a 4-digit number. Round any number to the nearest 10, 100 or 1000.	Estimate and use inverse calculations to check answers. Add and subtract numbers with up to 4 digits. Solve addition and subtraction two-step problems in context, deciding with operations to use and why.	Recall multiplication and division facts for multiplication facts up to 12x12. Recognise and use factor pairs and commutativity in mental calculations. Multiply 2-digit numbers and 3-digit numbers by a 1-digit number.	Count up and down in hundredths. Recognise and use families of common equivalence fractions. Add and subtract fractions with the same denominator.	Convert between different units of measure. Read, write and convert time between analogue and digital 12 and 24 hour clocks. Measure and calculate the perimeter of a rectilinear figure. Find the area of rectilinear shapes by counting squares.	Compare and classify geometric shapes. Identify lines of symmetry in 2D shapes presented in different orientations. Identify acute and obtuse angles. Plot specified points and draw sides to complete a given polygon.	Solve comparison, sum and difference problems using information from a bar charts, pictograms, tables and other graphs.	Recognise and decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ and $\frac{3}{4}$. Round decimals with one decimal place to the nearest whole number.
Year 5	Read, write, order and compare numbers to 1, 000, 000. Read roman numeral to 1000. Interpret negative numbers. Round numbers to the nearest 10, 100, 1000, 10,000 and 100,000	Use rounding to check answers. Add and subtract whole numbers with more than 4 digits. Add and subtract mentally with increasingly large numbers.	Identify multiples and factors. Know and use vocabulary of prime numbers. Recognise and use square numbers and prime numbers. Multiply numbers up to 4 digits by a 1 digit or 2-digit number. Divide numbers up to 4 digits by a 1-digit number.	Recognise mixed numbers and improper fractions and convert from one form to the other. Compare, order, add and subtract fractions whose denominators are all multiples of the same number. Multiply proper fractions and mixed numbers by whole numbers.	Convert between different units of metric measure. Use approximate equivalence between metric units and common imperial units such as inches, pounds and pints. Calculate and compare the area of rectangles, using standard units, square centimetres and square metres and estimate the area of irregular shapes.	Distinguish between regular and irregular polygons. Draw given angles and measure them in degrees. Identify, describe and represent the position of a shape following the reflection or translation.	Complete, read and interpret information in tables and timetables. Solve comparison, sum and difference problems using information from a line graph.	Read and write decimal numbers as fractions. Round decimals with two decimal places to the nearest whole number.

Year 6	Order and compare numbers up to 10,000,000. Round any whole number. Use negative numbers in context, and calculate intervals across 0.	Solve addition and subtraction multi-step problems in context. Perform mental calculations including with mixed operations.	Identify common factors, common multiples and prime numbers. Multiply and divide numbers up to 4 digits by 2 digits. Perform mental calculations including with mixed operations.	Use common factors to simplify fractions. Add and subtract fractions with different denominators and mixed numbers. Multiply simple pairs of proper fractions. Divide proper fractions by whole numbers.	Use, read, write and convert between standard units. Calculate, estimate and compare volumes of cubes and cuboids using standard units including cubic centimetres and cubic metres. Convert measurements of time from a smaller unit of measure to a larger unit.	Illustrate and name parts of circles including radius, diameter and circumference. Recognise, describe and build simple 3D shapes. Find unknown angles in triangles. Draw and translate simple shapes on the coordinate plane.	Interpret and construct pie charts and line graphs. Calculate and interpret the mean.	Identify the value of each digit in numbers to 3 decimal places. Multiply numbers with up to 2 decimal places by whole numbers.
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